How does EPISYS work?

First the user selects independent variables (NHRC or ICD-9 illness categories) and ancillary variables (sex, race, age, sevice branches, pay grade, occupation & duty platform) from the DATABASE-DEFINITION dialog box.



The user selects specific illness codes from a scrolling list.



Once the selections have been made the user runs an analysis on their new selections and in minutes can view univariate or multivariate results.

Univariate results:

For example during a 15-year period (January 01, 1980-September 31, 1994) Tuberculosis illnesses among Navy enlisted personnel produced the following incidence rates.

First hospitalization admissions for Tuberculosis by sex and race Cases per 100,000 Person-Years at Risk Confidence Level 95%

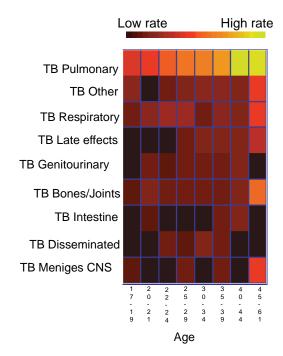
Confidence Limits

		No of Cases	Per-yrs at risk	Incidence Rate	Lower	Upper
Male	White	171	5,3113,483	3.2	2.7	3.7
	Black	85	967,494	8.8	6.9	10.6
	Other	122	458,327	26.6	21.9	31.3
	Total	378	6,739,304	5.6	5.0	6.2
Female	White	11	488,657	2.2	0.9	3.6
	Black	15	153,590	9.8	4.8	14.7
	Other	4	27,161	14.7	0.6	28.9
	Total	30	669,408	4.5	2.9	6.1
TOTAL		408	7,408,712	5.5	5.0	6.0

Multivariate results:

The following is just one example found on the multivariate menu.

Two-Way Table - NHRC/ICD9 X Age - Tuberculosis



Why was EPISYS developed?

In the past the ability to rapidly answer basic epidemiological questions regarding disease and injury rates in the U.S. Navy was hindered by a lack of an integrated database containing both hospitalization records and demographic data. Approximately 52,000 hospitalizations occur each year in the U.S. Navy enlisted personnel as a result of various diseases, injuries and illnesses. As a consequence, vast amounts of medical information are generated that would be of considerable interest to medical planners and managers. Such medical information, when combined with select demographic data provides enormous potential for projecting trends and estimating medical resource requirements. EPISYS was developed to integrate Navy inpatient hospitalization files with career history and demographic files to form a single system with a flexible interface. Currently, EPISYS contains 1.1 million medical records covering the time period from 1 January 1980 through 31 September 1994. Additional years and Navy Officers and Marine Corps personnel will be added in later versions.

In minutes EPISYS can answer basic epidemiological questions regarding disease and injury rates.

Additional capabilities:

- Surveillance capability
- Sampling strategy
- Age adjusted rates
- Standardized incidence rates
- Shipboard outpatient data (SAMS)

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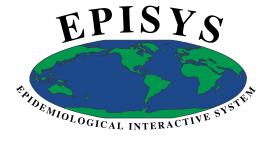
This software would not have been possible without the dedicated efforts of a number of individuals at the Naval Health Research Center, in particular: Dr. Eric Gunderson and Mike McNally who over the years have painstakingly assembled the databases used by EPISYS. A special note of recognition for William Pugh and Dr. Frank Garland for sharing their knowledge, and experience. A special appreciation for the following individuals who volunteered their time to beta test the software, Louis Balazs, Dr. Cedric Garland, Paul Pehau, Ron Clapsaddle and Dr. Harry Greer. And lastly, a special thank you is due to Karen Freeman for her assistance in proof-reading and verifying the user documentation.

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NAVAL HEALTH RESEARCH CENTER

San Diego, CA



An easy to use Windows® based program enabling medical planners to rapidly access and analyze 15-years of select hospitalization records and demographic data for U.S. Navy enlisted personnel.